

AMENDMENTS TO THE CLAIMS

This listing of claims will replace, without prejudice, all prior versions, and listings, of the claims in the application.

Listing of Claims:

Please insert the following phrase before the first claim:

We claim:

Claims 1-10 (Cancelled)

11. **(Currently amended)** An isolated polynucleotide encoding:

(a) a ribosome-inactivating protein, having a molecular weight of about 26,000 daltons by polyacryl-amide gel electrophoresis under reducing and non-reducing conditions, a pI of about 9.0, and comprising an amino acid amino acid sequence at least 75% identical to the amino acid sequence:

~~YNTVSNLGEAYEYPTFIQDLRNELAKGTP (SEQ ID No. 1),~~

~~or a biologically active fragment of the protein having ribosome-inactivating properties set forth in SEQ ID NO: 9, wherein at least the amino acids that are conserved among type I ribosome-inactivating proteins are of SEQ ID NO:9; or~~

(b) a toxin-ligand conjugate comprising the ribosome-inactivating protein of (a) ~~or a biologically active fragment thereof.~~

12. **(Previously presented)** A recombinant vector comprising the polynucleotide according to claim 11.

13. **(Previously presented)** The recombinant vector of claim 12, further comprising transcriptional and translational control sequences operably linked to the encoding polynucleotide.

14. **(Previously presented)** A host cell transfected with the recombinant vector of claim 12.

15. **(Currently amended)** A method for the recombinant expression of a ribosome-inactivating protein having a molecular weight of about 26,000 daltons by polyacryl-amide gel electrophoresis under reducing and non-reducing conditions, a pI of about 9.0, and comprising an amino acid amino acid sequence at least 75% identical to the amino acid sequence, ~~YNTVSNLGEAYEYPTFIQDLRNELAKGTP (SEQ ID No. 1), or a biologically active fragment of the protein having ribosome inactivating properties set forth in SEQ ID NO:9,~~ wherein at least the amino acids that are conserved among type I ribosome-inactivating proteins are of SEQ ID NO:9 the method comprising:

- (a) ~~transfecting a host cell with an expression vector comprising an a polynucleotide encoding the ribosome-inactivating protein or biologically active fragment thereof,~~
- b) growing the transfected host cells comprising an expression vector encoding a ribosome inactivating protein comprising an amino acid sequence at least 75% identical to the amino acid sequence set forth in SEQ ID NO:9, wherein at least the amino acids that are conserved among type I ribosome-inactivating proteins are of SEQ ID NO:9;
- (c) ~~inducing the transfected host cells to express the ribosome-inactivating protein or biologically active fragment thereof, and~~
- (d) ~~isolating the expressed recombinant ribosome-inactivating protein or biologically active fragment thereof.~~

16. **(Previously presented)** The method of claim 15, wherein said host cell is a bacterium, a plant cell, or a yeast.

17. **(Currently amended)** A method for producing a recombinant toxin-ligand conjugate, the method comprising:

- (a) ~~transfecting a host cell with an expression vector comprising a nucleotide sequence encoding a toxin-ligand conjugate comprising a ribosome inactivating protein having a molecular weight of about 26,000 daltons by polyacryl-amide gel electrophoresis under reducing and non-reducing conditions, a pI of about 9.0, and comprising an amino acid amino acid sequence at least 75% identical to the amino acid sequence,~~ ~~YNTVSNLGEAYEYPTFIQDLRNELAKGTP (SEQ ID No. 1), or a biologically active fragment of the protein having ribosome inactivating properties operably linked with a nucleotide sequence which encodes a ligand,~~

~~(b)~~ (a) growing the ~~transfected~~ host cells comprising an expression vector encoding a ribosome inactivating protein comprising an amino acid amino acid sequence at least 75% identical to the amino acid sequence set forth in SEQ ID NO:9, wherein at least the amino acids that are conserved among type I ribosome-inactivating proteins are of SEQ ID NO:9, operably linked with a nucleotide sequence encoding a ligand,

(c) inducing the ~~transfected~~ host cells to express the recombinant toxin-ligand conjugate, and

(d) isolating the expressed recombinant toxin-ligand conjugate.

18. **(Previously presented)** The method of claim 17, wherein said host cell is a bacterium, a plant cell, or a yeast.

19. **(Previously presented)** The method of claim 17, wherein the ligand is, a polypeptide, or a peptide ligand.

20. **(Previously presented)** The method of claim 19, wherein the ligand is an immunoreactive ligand.

Claims 21-26 **(Cancelled)**

27. **(Previously presented)** The method of claim 17, wherein the ligand is an immunoglobulin, hormone, growth factor, or a peptide.

Claims 28-29 **(Cancelled)**

30. **(Previously presented)** The polynucleotide of claim 11, wherein the encoded ribosome-activating protein comprises the amino acid sequence set forth in SEQ ID No. 9.

Claims 31-32 **(Cancelled)**

33. **(Previously presented)** The method of claim 15, wherein the ribosome-inactivating protein ribosome-activating protein comprises the amino acid sequence set forth in SEQ ID No. 9.

Claims 34-35 (Cancelled)

36. **(Previously presented)** The method of claim 17, wherein the ribosome-inactivating protein ribosome-activating protein comprises the amino acid sequence set forth in SEQ ID No. 9.

37. **(New)** An isolated polynucleotide comprising the nucleotide sequence set forth in SEQ ID NO: 8.

38. **(New)** An isolated polynucleotide encoding a polypeptide comprising the amino acid sequence set forth in SEQ ID NO: 9

39. **(New)** A recombinant vector comprising the polynucleotide of claim 37.

40. **(New)** A recombinant vector comprising the polynucleotide of claim 38.

41. **(New)** A host cell transfected with the recombinant vector of claim 39.

42. **(New)** A host cell transfected with the recombinant vector of claim 40.

43. **(New)** An isolated polynucleotide encoding:

(a) a ribosome-inactivating protein comprising the amino acid sequence set forth in SEQ ID NO:9, or

(b) a toxin-ligand conjugate comprising the ribosome-inactivating protein.

44. **(New)** A recombinant vector comprising the polynucleotide of claim 43.

45. **(New)** The recombinant vector of claim 44, further comprising transcriptional and translational control sequences operably linked to the encoding polypeptide.

46. **(New)** A host cell transfected with the recombinant vector of claim 44.

47. **(New)** A method for the recombinant expression of a ribosome-inactivating protein comprising the amino acid sequence set forth in SEQ ID NO:9, the method comprising:

- (a) growing host cells comprising an expression vector encoding a ribosome-inactivating protein comprising the amino acid sequence set forth in SEQ ID NO:9;
- (b) inducing the host cells to express the ribosome-inactivating protein; and
- (c) isolating the expressed recombinant ribosome-inactivating protein.

48. **(New)** A method for producing a recombinant toxin-ligand conjugate, the method comprising:

- (a) growing host cells comprising an expression vector encoding a ribosome-inactivating protein comprising the amino acid sequence set forth in SEQ ID NO:9 operably linked with a nucleotide sequence encoding a ligand;
- (b) inducing the host cells to express the recombinant toxin-ligand conjugate; and
- (c) isolating the expressed recombinant toxin-ligand conjugate.